I claim:

1.   A method for ensuring compatibility of components in a distributed production environment, comprising the steps of:

defining components of the distributed production environment;

5   defining static and dynamic inter-relationships between components of the distributed production environment;

defining permutations of dynamic inter-relationships based upon possible operation flows; and

determining compatibility of a component change based upon the defined static and
10   dynamic inter-relationships and the permutations of dynamic inter-relationships.

2.   The method for ensuring compatibility of components in a distributed production environment according to claim 1, further comprising the steps of:

preventing a component change for which a compatibility has not been determined; and

15   implementing a component change for which a compatibility has been determined.

3.   The method for ensuring compatibility of components in a distributed production environment according to claim 2, further comprising the step of notifying an operator when a compatibility is not determined for a component change.

4.   The method for ensuring compatibility of components in a distributed
20   production environment according to claim 1, wherein the defining permutations step includes the steps of:

determining a set of possible operations within the production environment;

determining a plurality of orderings of the set of possible operations within the production environment; and

determining dynamic inter-relationships between components based upon each of the plurality of orderings.

5. The method for ensuring compatibility of components in a distributed production environment according to claim 4, wherein the set of possible operations includes

5   processes in an e-commerce transaction.

6. A system for ensuring compatibility of components in a distributed production environment comprising:

a database;

a component change manager connected to the distributed production environment,

10   including:

means for determining components in the distributed production environment;

means for determining static and dynamic inter-relationships between the components in the distributed production environment and storing information regarding the static and dynamic inter-relationships in the database;

15   means for determining permutations of operations of the components in the distributed production environment; and

means for determining dynamic inter-relationships based upon the permutations of operations and for storing information regarding the dynamic inter-relationships in the database.

20   7. The system for ensuring compatibility of components in a distributed production environment according to claim 6, wherein the component change manager further includes:

means for receiving an indication of a component change; and

means for determining compatibility of the component change based upon the static

25   and dynamic inter-relationships stored in the database.

8.   The system for ensuring compatibility of components in a distributed production environment according to claim 7, further comprising means for preventing a component change when a compatibility is not determined.

9.   The system for ensuring compatibility of components in a distributed production environment according to claim 8, wherein the means for preventing includes means for notifying an operator that a compatibility has not been determined.

10.   The system for ensuring compatibility of components in a distributed production environment according to claim 7, wherein:

the means for determining permutations includes:

means for defining a set of possible operations within the production environment;

means for determining a plurality of orderings of the set of possible operations within the production environment; and

the means for determining dynamic inter-relationships includes means for dynamic inter-relationships based upon each of the plurality of orderings.

11.   The system for ensuring compatibility of components in a distributed production environment according to claim 10, wherein the set of possible operations includes processes in an e-commerce transaction.